DOCUMENT RESUME

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ABSTRACT

This teaching unit offers teachers, students, and their families a look at 3 centuries of history about the piano. Four lessons for high school music classes offer an opportunity to explore the cultural climate that nurtured the invention of and innovations for the piano along with descriptions of the personalities of the inventors, composers, and performers who contributed to the piano's history. Lesson 1 explores the history and culture of the late 1600s and early 1700s and has students brainstorm a modern-day innovation for the piano. Lesson 2 looks at the many roles of musicians and pianos through the years and asks students to consider what a music educator does, what part the piano played through the years, what part the piano played in the upbringing of young women in the 1800s, and to consider Japan's embrace of the instrument. Lesson 3, for keyboard classes, has students examine different genres of music for the piano and identify musical elements unique to certain styles. The lesson does not need to be used in sequence with the other lessons. In lesson 4 students experiment with sound either by making their own nail piano or by creating a prepared piano. The lessons cite educational objectives and standards; note materials needed; provide other information; detail step-by-step procedures for classroom implementation; and suggest lesson extensions. (BT)

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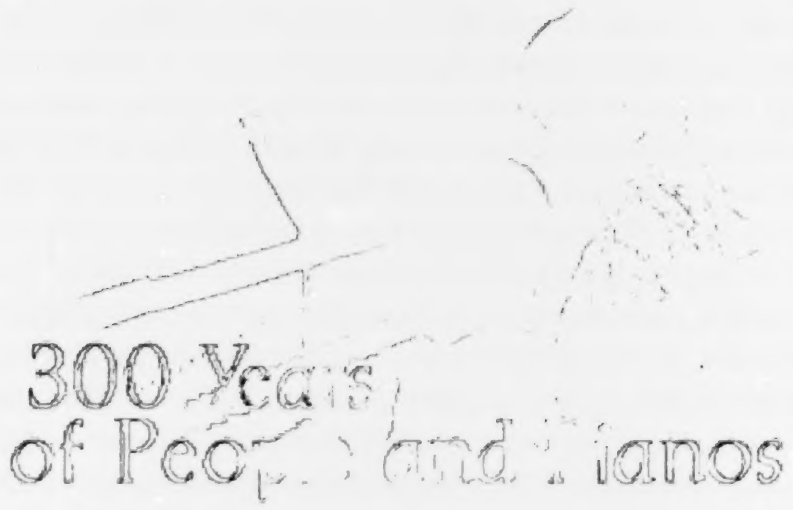

300 Years of People and Pianos is a documentary produced by the Smithsonian Institution and EuroArts Music International for PBS

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A Teacher's How To

For 300 years, the piano has captivated music lovers around the world. The documentary "300 Years of People and Pianos," produced by the Smithsonian and broadcast on PBS, offers you, your students and their families a look at those three centuries of the development of this legendary instrument. MENC: The National Association for Music Education is pleased to present educational materials for you to use to accompany the documentary. And the materials MENC has developed helps you teach to the National Standards for Music Education. The four lessons for high school music classes offer an opportunity for your students to explore the cultural climate that nurtured the invention and innovations of the piano and the myriad personalities of inventors, composers and performers. Invite students to watch "300 Years of People and Pianos" on PBS, checking local PBS affiliates for broadcast times, which will be tentatively planned for Fall 2001.

Tape the show yourself, or ask your Learning Resource Center coordinator to tape it for use in the classroom. You have permission to tape the show for educational use only and to maintain the tape for a year. **Lesson One** explores the history and culture of the late 1600s and early 1700s and then has students brainstorm a modern-day innovation for the piano. **Lesson Two** looks at the many roles of musicians and pianos through the years, asking students to consider what a music educator does, what part the piano played in the upbringing of young women in the 1800s and to consider Japan's embrace of the instrument. **Lesson Three**, for keyboard classes, has students look at different genres of music for the piano, identifying musical elements unique to certain styles. **Lesson Three** does not need to be used in sequential order with **Lessons One, Two and Four**. If you do not have keyboards or a keyboard class, feel free to move on to **Lesson Four**. And finally, in **Lesson Four**, students experiment with sound by either making their own nail piano or creating a "prepared piano." You may choose to use the lessons exactly as they appear here, or you may alter them to fit the needs of your particular group of students. The simplest way to carry out the lessons is to print them out, review and make any changes you wish in the procedures. Print out and then copy the worksheets at the end of **Lesson Three** so each of your students has the handout. If you do not have a classroom with computer and Internet access, worksheet #2 may be given to students to complete at home or in the school's resource center. Also on this site you'll find a timeline, the Stages in the Development of the Piano. For students wishing to learn more about pianos, this timeline includes interesting people, locales and innovations in the instrument worthy of further study. As an additional resource for your students, encourage them to explore www.piano300.org.

History and Culture

Lesson 1

For High School Level Music Classes
Appropriate for Choral, Band, Orchestra, General Music and Theory

Note to teachers: You may wish to collaborate with History and Literature teachers on the cultural climate of Florence in 1700.

Objectives

- Students will identify elements that created a need for a new keyboard instrument at the beginning of the 18th century
- Students will discuss the musical, social and political environment in Florence of 1700
- Students will brainstorm a musical need for today and "invent" an innovation for an acoustic piano

National Standards for Music Education: 8, 9

Materials

- Television
- VCR
- Videotape "300 Years of People and Pianos"
- Chalkboard
- Music journals (maintained by the students as part of their class work)
- Smithsonian web site on piano history: www.piano300.org

Optional

- Encyclopedia articles about Florence, the Medici family and pianos

Prior Knowledge

Students have read or studied about Florence in the 1700s and the culture of art, literature and thought that flourished there.

Procedures

1. Tell students they are going to view a video about the piano, an instrument invented by Bartolomeo Cristofori in the Medici courts of Florence, Italy, 300 years ago. Read, or have students read this excerpt from the Piano300 web site:

The story began in Florence, Italy, about 1700. In that year an inventory of musical instruments owned by Prince Ferdinando de' Medici described "a kind of harpsichord (*Arpicimbalo*) newly invented by Bartolomeo Cristofori [1655-1732], which plays soft (*piano*) and loud (*forte*)." A few lines down, it adds: "and some hammers (martelli) that produce the soft and the loud." In time, the term Piano e forte became pianoforte, and eventually was shortened to piano.

The leading keyboard instrument of the day, the harpsichord, made its sound by plucking wire strings. The piano's sound was made by leather-covered hammers striking the strings and bouncing away. This innovation let players control the loudness or softness of each note, opening up new ways of adding emotion and expression to the music.

2. Tell students that as they watch the video, to note mention of the Italian city of Florence and why the piano might have been invented there. Also, tell students to watch for early keyboard instruments and any improvements or innovations to the piano.

Florence, Italy

3. Show video from [00:00 to 05:20].

4. Lead students in a discussion about the conditions in Florence in 1700 and why it was conducive to the invention of the piano. (Students may contribute information from their previous readings about Florence.) Points you might want to cover include:

- prosperous merchant city at beginning of 15th century where tradesmen and craftsmen built flourishing city state
- the Medicis, who were a wealthy and influential family, controlled Florence from the mid-1400s until mid-1700s
- home of beautiful churches, palaces and public buildings
- sculptures and paintings by Giotto, Michelangelo, Cellini, Donatello
- great literature and political theory flourished--Dante, Machiavelli
- Prince Ferdinando de Medici, who loved music, was a brilliant patron of the arts in Florence at time of piano's invention (His father, Cosimo III, was the Grand Duke of Tuscany.)
- court supported builders and maintainers of instruments

5. Lead students in a discussion about the origins of the piano. Questions you might want to pose include:

   - What keyboard instruments were in use in the late 1600s? (harpsichords, clavichords, virginals)
   - Why couldn't the harpsichord offer changing dynamics? (quill plucking action didn't allow for loud or soft)
   - What was it in Bartomoleo's invention that allowed for soft and loud? (spring joints and lever system of leather-covered hammers striking the strings and bouncing away)
   - What other instruments were in use in the late 1600s and early 1700s? (accept reasonable answers, including violin, cello, horns, flutes, harps, dulcimers, lutes, etc.)

6. View video segment from [05:28--17:00].

7. Discuss with students how the piano changed from the first ones made by Cristofori. Points you might want to cover include:

   - a builder and maintainer of harpsichords, Cristofori invented the *Arpicimbalo col piano e forte*, a kind of keyboard with soft and loud, around 1700
   - while harpsichord made its sound by plucking wire strings, the new instrument's sound was made by leather-covered hammers striking the strings and bouncing away, allowing players to control loudness or softness of each note
   - 18th-century pianos made by experienced craftsmen building about seven a year (Teachers may draw a contrast between this craftsman and master-apprentice approach to piano building and the methods of mass manufacturing that evolved later in the 19th century and the highly mechanized production of the late 20th century.)
   - piano building then developed in two cultural centers of Europe in the 1700s--Southern Germany/Austria and London.
   - different sounds and mechanical techniques from each area--lighter tone from Vienna and heavier, louder and more robust tones from London makers
   - increasing number of keys
   - narrator says "In Beethoven's lifetime, pianos were growing and evolving at the speed or parallel to today's computers."
   - Erard develops the repetition action allowing for lightness, strength and rapidity

Steinway Workroom

Optional

The video also includes the following changes:

- [24:00] American Babcock's 1825 patent of a single-piece iron frame
- [28:00] Steinway's overstringing on the iron frame and rim press for grand piano case
- [43:00-44:00] player pianos
- [49:00] Kakehashi's invention of MIDI (musical instrument digital interface)

8. Have students gather in groups of 3 or 4. Have them brainstorm about a musical need or improvement for the piano. (Examples might be: a built-in metronome, a device that scores music to a music video, more notes, size...accept reasonable ideas.) Optional: Have groups present their inventions or improvements to the class using visual and audio illustrations.

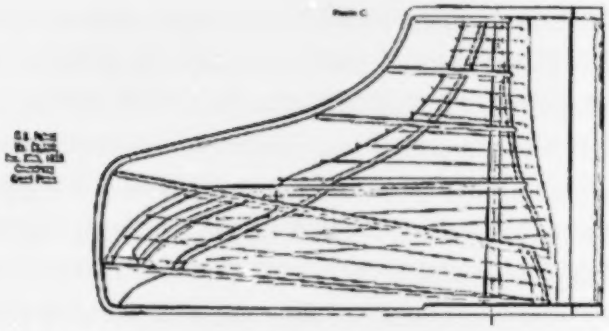
Extensions

Have students choose one of the two topics below and write thoughtful entries in their journals. For follow-up, have students share their entries in class.

1) Research inventions and discuss the difference between inventions, innovations and discoveries. What was being developed in the scientific world of the 1700s? Name some inventions or discoveries in the 1600s and 1700s. Were there seeds for change in social and political thought during the 1700s? Have students write thoughtful accounts in their music journals.

2) Research musical styles of the 17th and 18th centuries and discuss the differences in Baroque and Classical. Which style exhibits dramatic and stark contrasts of dynamics, texture and density? What instruments do composers predominantly use for each style? Does either style make more use of soloists? Have students write thoughtful accounts in their music journals.

Michaeler Platz, Vienna



Steinway overstringing patent drawing

Babcock patent drawing

Roles of Musicians and Pianos

Lesson 2

For High School Level Music Classes
Appropriate for Choral, Band, Orchestra, General Music and Theory

Objectives

- Students will identify various career options of pianists and music educators
- Students will discuss the changing cultural roles of the piano during its 300 years
- Students will write about various career options in music involving the piano and discuss these careers with classmates.

National Standards for Music Education 8, 9

Materials

- Television
- VCR
- Videotape "300 Years of People and Pianos"
- Chalkboard
- Music journals (maintained by the students as part of their class work)
- Video is 56 minutes

Procedures

1. Tell students they are going to view a video about the piano, an instrument invented by Bartolomeo Cristofori in the Medici courts of Florence, Italy, 300 years ago. Tell them that the leading keyboard instrument of the day was the harpsichord, which made sound by plucking wire strings. In contrast, the newly invented piano made its sound by leather-covered hammers striking the strings and bouncing away. This innovation let players control the loudness or softness of each note.

2. Tell students as they watch the video to consider the many careers people have that are involved with pianos.

3. Show video.[00:00--17:40]

4. Ask students to name the careers surrounding pianos that they observed as you or a volunteer writes the answers on the chalkboard. (Accept reasonable answers, including: piano builder, piano tuner, accompanist, performer, composer, studio

teacher, general music teacher, church musician, court musician, piano manufacturer, sheet music publisher, music arranger, piano sales, inventor of electronic or computerized improvements and innovations, etc....)

Steinway Foundry Workers

5. Have students suggest in which century the careers that they named flourished. Next to the chalkboard list, write in the century (or centuries) that fits each item.

6. Discuss various answers, including music educator. Lead students to discuss their experiences in various areas that music educators might be found using the piano, including:

- schools--general music, choral directors, piano lab, jazz bands
- private studios
- conservatories and college faculties
- places of worship
- music theater rehearsals and shows
- enjoyment

Ask students why piano study would be helpful to music educators, drawing out such areas as accompanying, demonstrating theory and chordal structure, etc...

Lead students to think about what qualities make successful teachers, including technical knowledge, ability to motivate, identify and set achievable goals, ability to present material in an organized and sequential manner, ability to develop rapport with students, etc....

7. View video segment [17:40--23:30].

8. Ask students to consider the Romantic virtuosi of the 19th century such as Chopin and Liszt seen in the video, pointing out their celebrity status. Ask students to consider if there are pianists today who have comparable following or emotional effect on an audience. (Accept reasonable answers, such as Dave Brubeck,

Thelonius Monk, Liberace, Jerry Lee Lewis, Stevie Wonder, Billy Joel, Elton John, Van Cliburn, Alicia De Larrocha, Arthur Rubenstein, etc...)

Part II

9. View video segment [29:00--32:00] (skip video segment 23:30--29:00.)

10. Lead students in a discussion of the "profession" of young women in the 1800s-- a well-bred girl was expected to play the piano, whether she had talent or desire. The film makes the following points:

- in 19th-century America, the piano in the parlor was as necessary as an oven in the kitchen, and was a symbol of morality and refinement
- a musical daughter was a status symbol for wealthy and upwardly mobile families
- some women discarded the piano after making a suitable marriage
- some played throughout their lives, accompanying singing and dancing at social gatherings, church and for personal enjoyment
- women moving into public arena as performers, ie. Clara Schumann

11. View video segment [48:47--56:00]

12. Discuss the piano's entry into Japan and its culture in the 19th century. Points you might want to cover include:

- Japan opened to the West in 1868 and a Japanese delegation visited the US in the 1870s
- hunger for Western technology and education
- the discipline and art of piano playing resonated with Japanese culture
- pianos embodied the musical element of education and Japanese adapted it as the prime learning tool for American music
- Yamaha built first piano in Japan in 1900
- Korea and China followed Japanese piano building
- East Asia the heart of current piano industry, with 60-65% of pianos produced there today
- Ikutaro Kakehashi, now Roland Corp. Chairman, invented MIDI

Extension

Have students choose one of the three topics below and write thoughtful entries in their journals. For follow-up, have students share their entries in class.

1) Advice books in the 19th century defined educated women as those accomplished in music, dance, needlework, drawing and manners. Could these areas be considered careers? How would a woman of the 19th century make a living and what responsibilities might she have? How would you define an "educated

woman" today? What place would music have in the definition? Would dance, art and needlework have a place? What about academics and sports? Would professional aspirations or accomplishments be included? Write in your journals your ideas of an educated woman of the 21st century.

2) Piano teachers and parents have long urged their students or children to "practice 30 minutes a day" or "practice each piece three times" at the daily session. Do you or did you take piano lessons? What about instruments? What practice habits were you asked to form? Prepare a small research project on practice habits. Ask 10 people you know who play an instrument how many days a week they practice and how long each time. Ask them how much enjoyment they get from playing the instrument. After collecting the answers, see if there is any correlation between the amount of enjoyment received from playing the instrument and the amount of time spent practicing. If helpful, create a graph showing relationship between time and perceived enjoyment. Write your findings in your journals.

3) Ask students to select one of the careers discussed and consider these questions: How can you learn what you will need to know to pursue a career in music? What sort of education will you need to pursue your chosen career? How much musical knowledge will you need? How will you let a prospective employer know that you are qualified for a certain type of work? What are your concerns about music as a career? Write your answers in outline form in your music journal.

Images Lesson 2

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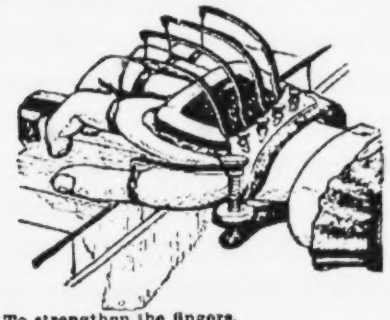

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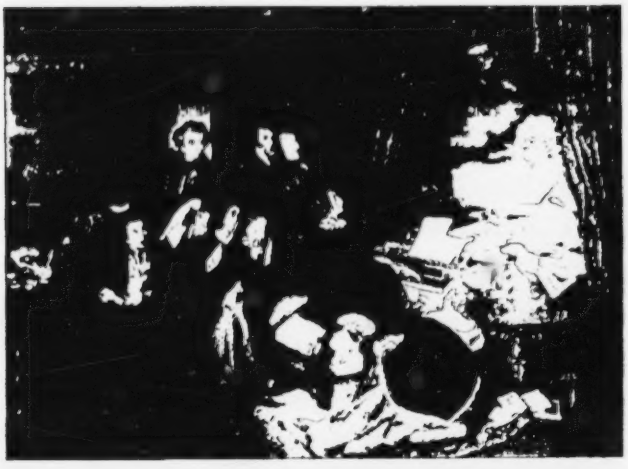
Liszt performance



Reminiscence of Liszt

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Clara Wieck Schumann | Torahisu Yamaha

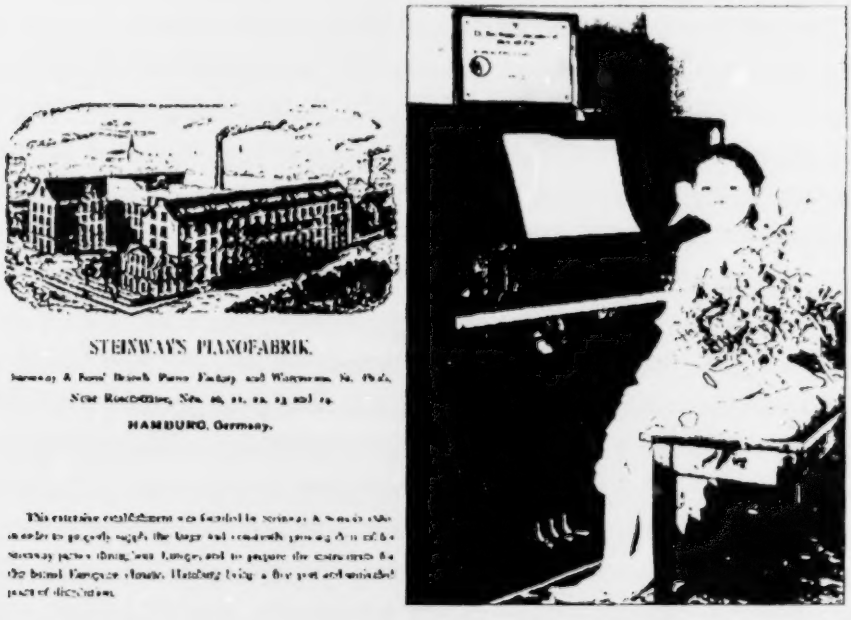

Image from Steinway catalog | Marjorie Yamamoto

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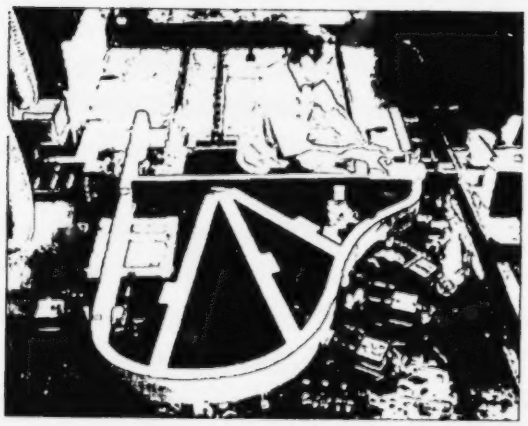
Liberace



Man working on a Yamaha Grand

Genres – Musical Language

Lesson 3

for High School Keyboard Classes

Note to teachers: Lesson 3 does not need to be used in sequential order with Lessons 1, 2, and 4. If you do not have classroom keyboards, move on to Lesson 4.

Objectives

- Students will identify aurally different styles when applied to a common melody and identify aurally what musical element or elements were employed to effect the style change

National Standards 3, 9

Materials

- Electronic keyboard capable of creating both varied sounds and percussion, or recorded/sequenced examples
- Selected materials explaining the history of language and style, such as *The Music Suite* (Grand Rapids, MI: Yamaha Corporation of America, 1995)
- Computer with sound card, speaker, and Internet access to www.piano300.org, and ability to download MP3 player or access to a computer lab or resource center with this equipment
- Copies of Worksheet #1 found at end of this lesson
- Copies of Worksheet #2 found at end of this lesson

Optional

- Recordings of various music selections, including Baroque, Romantic, Jazz, Spanish and African pieces.
- Audio-playback equipment

Prior Knowledge and Experiences

Students have an understanding of the characteristics of various musical time periods and styles, such as Baroque, Classical, Jazz, Romantic, Rock, Gospel, Ragtime and Popular. Students have viewed videotape "300 Years of People and Pianos."

Procedures

1. Discuss the English language as representing a standard format that, nonetheless, includes subtle variations in usage. Bring to light how people from different regions of the country speak the same language but with different accents and word choices, for example, "y'all" versus "you all." Lead the students to recognize that different time periods have also affected the way English sounds. Give this example from *The Music Suite*: "Good day, I pray thee, art thou hale and hearty?" can be compared to "Hello, how are you today?" and "Hey! How's it goin'?"

2. Discuss how musical language can be affected by time period and location, resulting in various styles.

3. Distribute Worksheet #1. Play "Twinkle, Twinkle, Little Star" on the classroom piano or keyboard in a basic style with no additional instruments or accompaniment. Then play the song on electronic keyboard in the following styles (or play recorded/sequenced examples):

   - Classical (symmetry of form, simple rhythm, polyphony, harmony)
   - Jazz (strong meter, improvisation, dotted or syncopated rhythm patterns)
   - Gospel (introduction by solo keyboard instrument with ornamentation, blues chords and heavy accents, call and response, free interpretation of vocal and instrumental parts)
   - Rock (driving rhythm, accents on the offbeat)
   - Popular Song (relatively short, prominent melody, simple harmonies, simple chordal accompaniment)
   - Ragtime (syncopated melody conflicting with a steady duple meter)

Using their worksheets, have students write down the style of each example and identify which elements of music (melody, harmony, rhythm or form) were used to create that style.

4. Discuss the students' answers with them, focusing on the musical elements that make the style of each piece distinctive.

Part II

5. Hand out copies of Worksheet # 2.

6. In the computer lab or resource center, have students listen to selections from the listening booths on the web site www.piano300.org/playmp3.htm. Have them choose one selection from each category: Classical, Jazz, Gospel, Rock, Popular Song and Ragtime. On their worksheets, have students describe the piece they selected from each genre in terms of the following elements: rhythm, harmony, melody and form.

7. Have students discuss the musical elements that make each of the six categories different from the others.

8. Based on their answers, have the students make some generalized statements about how the treatment of the musical elements affects the style. For example, the melody is prominent in both Popular Song and Ragtime, but Rag always has syncopated rhythm.

Extensions

1) Assign a simple song for students to play and then modify through stylistic changes. Have them explain what they did and why, identifying the particular style they had in mind.

2) Expand styles under study to include Baroque, Romantic, Spirituals, Folk songs, Impressionism, 20th-century, John Cage's prepared piano and so forth.

This lesson is adapted from Strategies for Teaching: Middle-Level and High School Keyboard, compiled and edited by Martha F. Hilley and Tommie Pardue. (MENC ©1996)

Worksheet #1

As your teacher plays an example of a musical genre, make notes describing the appropriate musical elements.

"Twinkle, Twinkle Little Star"

Genre	Melody	Harmony	Rhythm	Form

Worksheet #2

Piano 300 Listening Booth Selections

(Listening examples found at www.piano300.org/playmp3.htm)

Classical

1) Chopin "Waltz 1 E flat major, op 18"
2) Gershwin "Rhapsody in Blue"
3) Mozart "Turkish March"

Choose one selection above and describe the genre on the chart below.

Title	Melody	Harmony	Rhythm	Form

Jazz

1) "Take Five"
2) "Fess Up!"
3) "Wolverine Blues"

Choose one selection above and describe the genre on the chart below

Title	Melody	Harmony	Rhythm	Form

Gospel

1) "I'd Rather Be An Old Time Christian"
2) "Spirit in the Dark"

Choose one selection above and describe the genre on the chart below.

Title	Melody	Harmony	Rhythm	Form

Rock

1) "I Say A Little Prayer"
2) "Where to now St. Peter?"
3) "Get It While You Can"

Choose one selection above and describe the genre on the chart below

Title	Melody	Harmony	Rhythm	Form

Popular Song

1)"Goodnight My Angel"

Describe the genre on the chart below

Title	Melody	Harmony	Rhythm	Form

Ragtime

1) "Boogie Woogie Blues: Panic Street"
2) "Hello My Baby"
3) "Take Me Out to the Ballgame"

Choose one selection above and describe the genre on the chart below

Title	Melody	Harmony	Rhythm	Form

Scott Joplin

Dorsey and Piano

Mary Lou Williams

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Making Your Own

Lesson 4

For Middle and High School Music Classes

Objectives

- Students will make a nail piano and play it with "hammers" of metal spoons, wooden spoons and yarn-covered marimba mallets
- Students will investigate acoustical effects made by various materials
- Students will learn concepts of length and frequency relationship
- Students will "prepare" a piano and experiment with placement of objects and the effect on sound

National Standards 8

Materials

Nail Piano--supplies needed for each student or group of students

- piece of 1/2" plywood, 12"x 6" or larger
- 5 nails: 3 12d, 1 10d, 1 8d
- compass
- hammer
- metal spoons, wooden spoons
- yarn-covered marimba mallets

Prepared Piano

- teacher-provided recording of one of John Cage's compositions
- several wood screws, erasers, paper, spoons,
- 1 piano (preferably a grand rather than an upright)

Extension

- rubber bands
- styrofoam cups

Prior Knowledge and Experiences

Students have viewed videotape "300 Years of People and Pianos." Students have discussed the action of the piano's spring joint and lever system of hammers

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Procedures

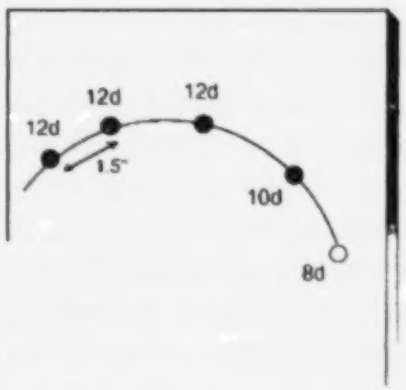
This lesson is divided into two parts. In the first, individuals or groups construct a nail piano and investigate the effects on the nails, or "strings," when struck with hammers of different materials. In the second part, students make a prepared piano and investigate the effect of manipulating the piano's strings with objects. You may choose to do only one part, both, or divide the class and have one group do Part I and another group do Part II.

Part I Nail Piano

1. Tell students they are going to make a nail piano and explore the acoustical effects of hammers made from different materials on the nails of different lengths and diameters.

2. Hand out the materials to groups or individuals, depending on if the class will be working as individuals or teams.

3. On the plywood, have students mark an arc by using a compass set to 5 inches. [see diagram]



4. Starting at 1 inch from the edge of the wood, pound in nails every 1 to 1 1/2 inches along the arc. Place the largest nails at the top and the smallest at the bottom. Don't hammer them in too deep.

5. To tune the instrument, raise the pitch of any nail by hammering it in. Lower the pitch by carefully pulling out with the hammer's claw.

6. Tune to D E G A B

7. Hold in left hand with nails facing the student and the bottom resting on the left knee.

8. Using a metal spoon, wooden spoon or a yarn-covered marimba mallet, strike the nails near the board.

9. As students experiment with different hammer materials, have them keep a journal of the effects.

Part II Prepared Piano

1. Play a recording or audiotape of one of John Cage's compositions for prepared piano for your students. (One possibility is *"Sonatas and Interludes"* [1946-48].)

2. Ask students what they think about what they heard.

3. Tell them that 20th century composer John Cage devised this technique by placing screws, bolts, nuts, metal paperclips, coins, safety pins, clothespins, cardboard, rubber wedges, wires, pencil erasers or similar objects in the strings of the piano.

4. Discuss how the timbre is altered in a prepared piano.

5. Tell students they will make a prepared piano. Tell them they will use great care not to drop or mar anything with the objects.

6. Have students carefully screw a wood screw between one of the pairs of strings in the tenor register of the piano. Try moving it for different sounds.

7. Next, have students try placing a rubber eraser between string pairs. Try moving it for different sounds.

8. Have students weave a piece of paper over and under the strings about 5 inches in front of the hammers.

9. Have students play a simple piece, such a "Twinkle, Twinkle Little Star."

10. Have students continue experimenting with placement of objects and keep a journal of the effects. Have them note if certain placement deadens the strings or emphasizes the overtones.

Extension

Students may wish to make a simpler instrument than one with plywood and nails. A zither can be easily made by using a series of rubber bands stretched across a resonant cavity, even such as a large styrofoam cup.

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Stages in the Development of the Piano

A Chronological Timeline

1700s	
1700	Bartolomeo Cristofori's "new invention" of the *piano e forte* recorded, Florence
1711	Scipione Maffei publishes a journal article about the piano
1716	Jean Marius submits hammer-keyboard designs to Royal Academy of Sciences, Paris
1721	Christoph Gottlieb Schröter submits hammer-keyboard designs to the Saxon Court, Dresden
1725	Translation of Maffei's article into German stimulates widespread interest
1725	Pianos advertised, Vienna
1730s	Gottfried Silbermann experiments with pianos derived from Cristofori, Dresden Pianos known to be in Portuguese and Spanish courts
1730	Fickert advertises hammer-keyboard instrument, Leipzig
1732	First published piano music, by Ludovico Giustini
1739	Domenico del Mela builds earliest known upright piano, Gagliano, Italy
1740s	Christian Ernst Friederici makes upright pianos, Gera, Germany
1740	George Frederic Handel plays on a piano, London
1747	J. S. Bach plays a Silberman piano at the Prussian Court, Potsdam, and composes *Musical Offering*
1750s	Pianos advertised for sale in France
1753-62	C. P. E. Bach: *Essay on the True Art of Playing Keyboard Instruments* published

1760s	Pianos derived from Cristofori built in Spain and Portugal; Pantalons, small hammer-keyboard instruments, made in Germany
1763	Reports of earliest public performances on pianos by Johann Baptist Schmid, Vienna
1766	Probable invention of the square piano by Johannes Zumpe, London
1767	Early public piano performances, one by Johann Christian Bach, London
1768	First public piano performance in Paris
1770s	Johann Andreas Stein perfects the "Viennese" grand piano, Augsburg, Germany
1771	Americus Backers produces the English grand piano, London; Earliest reported public piano performance in North America by David Propert, Boston
1773	First public piano performance in New York Broadwood Company established, London
1775	John Behrendt makes and advertises a piano, Philadelphia
1777	Sébastien Erard makes his first square piano, Paris Robert Stodart patents the English grand action, London
1779	Muzio Clementi publishes his first piano sonatas, London
1780s	Carl Philipp Emanuel Bach publishes series of sonatas and fantasias for piano Haydn takes up the piano
1780	Anton Walter making pianos, including one for Mozart, Vienna
1781	Mozart and Clementi 'duel' in Vienna
1783	Paris Conservatoire founded
1784	William Southwell makes a 5 1/2-octave square piano, Dublin
1784-6	Mozart: Piano Concertos Nos. 14-25 composed

1786	John Geib patents the "grasshopper" square action, used for 70 years, London Erard establishes piano manufacturing in London
1794	John Broadwood makes 5 1/2-octave grand piano, London William Stodart patents a large upright piano, a grand set on its head, London Matthäus Andreas Stein and Nanette Streicher, children of Johann Andreas Stein, move to Vienna Ibach established, Schwelm
1794-5	Haydn: 'London' piano sonatas and trios composed
1795	Johann Jakob Könnicke makes a 6-octave, 6-keyboard piano, Vienna Beethoven: 3 Piano Trios, Op. 1 and 3 Piano Sonatas, Op. 2 published
1796	Broadwood makes a 6-octave grand for the Queen of Spain, London
1797	First piano magazine, *The Pianoforte*, London James Hewitt: *The Battle of Trenton* published
1798	François-Adrien Boieldieu named professor of piano at Paris Conservatoire

1800s

1800	John Isaac Hawkins, Philadelphia, and Matthias Müller, Vienna, make small uprights Alexander Reinagle: Piano Sonatas completed, Philadelphia
1802	Nanette Streicher separates from her brother, Matthäus Andreas Stein, to make pianos in her own name
1803	Erard Brothers of Paris present Beethoven with a piano
1804	Jan Ladislav Dussek plays a concerto with his profile toward the audience, Prague
1807	Pleyel established, Paris
1808	Erard patents the agraffe, a metal stud through which strings pass from the tuning pin

c1810	English and Continental makers design 6-octave pianos, English from C-c, German from F-f "Upright grands" made in England and "giraffes" in Germany and Austria
1811	Robert Wornum patents small upright, London Conrad Graf established, Vienna Prague Conservatory founded
1816	Nanette Streicher makes 6 1/2-octave grands, C-f, Vienna
1817	Thomas Broadwood, London presents a grand piano to Beethoven, Vienna Vienna Conservatory founded
1819	Carl Sauter Company established, Spaichingen, Germany
1820	First successful use of metal in grand piano frame by Thom and Allen, London
1821	Sébastien Erard patents the double-escapement "repetition" action, basis of modern grand action, Paris Weber: *Konzertstück* composed
1822	Erard makes a 7-octave piano
1823	Jonas Chickering begins making pianos in Boston Beethoven: *Diabelli Variations*, Piano Sonatas Nos. 31 & 32 published
1825	Alpheus Babcock patents first single-piece metal frame for squares, Boston
1826	Henri Pape patents use of felt for hammer covering, Paris Robert Wornum patents tape-check action, the basis for modern uprights, London Clementi: *Gradus ad parnassum* published Benjamin Carr: *Analytical Instructor for the Pianoforte* published

1828	Ignaz Bösendorfer making pianos, Vienna Henri Pape first uses cross-stringing in small "console" uprights, Paris Schubert: Last three piano sonatas composed Johann Nepomuk Hummel: *A Complete Theoretical and Practical Course of Instruction on the Art of Playing the Piano Forte* published
1833	Chopin: Études Op. 10 published
1837	Knabe Company established, Baltimore Schumann: *Carnaval*, *Davidsbündlertänze*, and *Symphonic Études* composed Liszt and Thalberg 'duel' in Paris
1839	Moscheles: *Méthode des méthodes* published Czerny: *The Compete Theoretical and Practical Pianoforte School*, Op. 500 published Liszt establishes the solo recital, performing from memory without assisting artists
1840	Herz modifies Erard's "repetition" action
1841	Becker Company established, St. Petersburg Liszt: *Norma, Don Juan,* and *Robert le Diable Fantasies* published
1843	Chickering patents one-piece metal frame for grands Antoine-Jean Bord invents capo tasto bar (downbearing bar at tuning-pin end of strings) Leipzig Conservatory founded
1845	Leopold De Meyer tours U.S.
1846	Henri Herz tours U.S.
1847	Gaveau Company established, Paris
1848	Debain invents an automatic mechanical piano, Paris
1849	Ed. Seiler Company established, Liegnitz/Kitzingen

1850	Heintzman Company established, Toronto
1851	"Great Exhibition" displays state-of-the-art pianos, Erard favored, London
1852	Mathushek Company established, New York Weber established, New York
1853	Steinway & Sons, New York, Carl Bechstein, Berlin, and Blüthner, Leipzig, established Chickering builds new factory, second largest building in U.S., Boston Liszt: B minor Sonata composed Brahms: Piano Sonata No. 3 composed Louis Moreau Gottschalk returns to U.S. as a touring virtuoso
1855	William Mason establishes chamber music series in New York
1856	Wurlitzer Company established, Chicago Thalberg tours U.S. Lebert & Stark: *Grand Theoretical and Practical Piano School* published
1857	George Steck Company established, New York Peabody Conservatory founded, Baltimore
1859	Henry Steinway, Jr. patents cross-stringing for grands August Förster Company established, Lobau, Germany
1860	Julius Feurich established, Leipzig Broadwood & Sons make their last square; uprights dominant in European homes
1862	At London Exposition, Steinway wins a medal with cross-strung grand
1864	Petrof Company established, Hradec Kralove, Czech Republic
1865	Grotrian Company established as successors to Theodore Steinway, Braunschweig, Germany

	Oberlin Conservatory founded, Oberlin, Ohio
1867	Chickering and Steinway win the top prizes at Paris Exposition New England Conservatory founded
1869	Balakirev: *Islamey* composed
1872	Theodore Steinway patents the duplex scale to enrich the tone Steinway presents Anton Rubinstein's U.S. tour Sohmer established, New York
1874	Albert Steinway patents the sostenuto pedal (middle pedal on modern grands)
1874	Musorgsky: *Pictures at an Exhibition* composed
1875	Chickering presents Hans von Bülow's first U.S. tour
1878	A Japanese square is exhibited at Paris Exhibition
1880	Wurlitzer Company begins making pianos Theodore Steinway develops the laminated grand piano rim
1881	Mason & Hamlin Company begins making pianos, Boston
1882	Louis Renner Company founded to make piano actions, Stuttgart, Germany
1885	Schimmel Company founded near Leipzig Aeolian Organ & Music Co., later Aeolian Co., founded to make automatic organs, later automatic pianos
1888	Steinway & Sons makes its last square; other Americans continue making them
1891	D. H. Baldwin Company, Cincinnati, making pianos Steinway presents Ignacy Jan Paderewski's first U.S. tour
1895	Story & Clark Company making pianos, Chicago, later Grand Haven, Michigan Aeolian Company making automatic pianos, New York
1896	Kohler & Campbell Company established, New York

	Edward MacDowell: *Woodland Sketches* composed
1899	Torakusu Yamaha begins making pianos, Hamamatsu, Japan Scott Joplin: *Maple Leaf Rag* published Eubie Blake: *Charleston Rag* composed First competition of pianists, Russia

1900s	
1900	E. S. Votey, Aeolian Company, patents pneumatic piano player, the "Pianola" Baldwin wins grand prize at Paris Exposition
1901	Welte-Mignon invents a player-piano mechanism, Freiburg, Germany
1901	Debussy: *Suite pour le piano* composed Ravel: *Jeux d'eau* composed Piano Manufacturers Association founded, later PMAI
1903	Winter & Co. established, New York Rachmaninoff: Ten Préludes, Op. 23 published
1904	American piano manufacturers make bonfire of square pianos, Atlantic City
1905	Hupfeld makes the "Dea" reproducing-piano mechanism, near Leipzig The Juilliard School founded
1906	Gulbransen Company established, Chicago
1908	American Piano Co. founded, incorporates Chickering, Knabe, Weber, Haines Brothers, and others National Association of Piano Tuners founded
1909	Albéniz: *Iberia* published
1910	Steinway & Sons moves its factory entirely from Manhattan to Astoria, Long Island

1911	Bartók: *Allegro barbaro* composed Granados: *Goyescas* published
1912	Prokofiev: Piano Concerto No. 1 composed Eastman School of Music founded
1913	Aeolian Co. patents "Duo-Art Reproducing Piano," New York American Piano Co. makes "Ampico" player mechanism, New York
1915	Charles Ives: *Concord Sonata* composed
1916	Mannes College of Music founded
1917	Manhattan School of Music founded San Francisco Conservatory founded
1918	Hector Villa-Lobos: *Prole do bebê* composed
1919	156,000 pianos, 180,000 player pianos manufactured in U.S.
1923	Jelly Roll Morton's first recordings, Chicago
1924	Gershwin: *Rhapsody in Blue* premiered Curtis Institute founded
1925	Henry Cowell: *The Banshee* composed
1927	Kawai Company making pianos, Hamamatsu, Japan
1928	Earl "Fatha" Hines records *Apex Blues*, *Weather Bird*
1928-30	Neo-Bechstein, electric piano with electromagnetic pickups to amplify struck strings
1929	Great Depression seriously limits piano manufacture everywhere
1932	American Piano Co. and Aeolian merge to form Aeolian American Corporation Tobias Matthay: *The Visible and Invisible in Pianoforte Technique*
1933	Art Tatum's first professional solo recordings Challen Company makes the largest (11-foot-8-inch) grand ever made, London

1935	Alfred Knight Company founded to make uprights, Essex, England
1939-45	World War II effectively halts piano manufacture everywhere
1940	John Cage: *Bacchanale* composed American Association of Piano Technicians founded
1945	Mary Lou Williams: *Zodiac Suite* composed
1947	Conlon Nancarrow begins *Studies for Player Piano*
1948	Pierre Boulez: Piano Sonata No. 2 composed
1953	Liberace wins 2 Emmy Awards for network television programs
1955	Guangzhou-Pearl River Company established, Guangzhou, China
1958	Samick Company established, Inchon, S. Korea Shanghai Piano Co. established, Shanghai Beijing Piano Co. established, Beijing Van Cliburn wins Tchaikovsky Competition, Moscow Piano Tuners and Piano Technicians Associations merge as Piano Technicians Guild
ca 1960	Harold Rhodes develops the electric piano (Fender-Rhodes)
1961	Pleyel, Erard, Gaveau merge
1966	Bösendorfer, Vienna, acquired by Kimball, Chicago
1968	Young Chang begins making pianos, Inchon, S. Korea
1969	Japanese piano production exceeds that of all other countries Yamaha Japan's largest producer Astin-Weight patents larger soundboard design for uprights, Salt Lake City
1971	Schimmel acquires Pleyel, Erard, Gaveau
1972	CBS buys Steinway & Sons
1973	Steve Reich: *Six Pianos* composed

1974	Baldwin buys Bechstein, Berlin
1975	Frederic Rzewski: *The People United Will Never Be Defeated* composed
1977	John Adams: *Phrygian Gates* composed
1980s	Development of computerized player pianos, Bösendorfer, Yamaha, Baldwin, and others
1980	Fazioli established, Sacile (Portenone), Italy
1985	A group of Boston businessmen buys Steinway & Sons from CBS Aeolian Corporation disbanded Wurlitzer buys Chickering name
1987	Baldwin sells Bechstein back to employees
1988	Klavins builds a 12-feet-high experimental upright, Bonn, Germany
1990	Young Chang buys Kurzweil Music Systems, American maker of electronic keyboards PianoDisc (Music Systems Research) established, Sacramento
1991	Boston Piano Company established as Steinway subsidiary, New York
1993	Darrell Fandrich patents new upright action design, Seattle
1995	Steinway and Selmer merge into Steinway Musical Instruments Baldwin buys Wurlitzer and Chickering names
1996	Music Systems Research takes control of Mason & Hamlin, Sohmer, and Knabe Young Chang opens factory in Tianjin, China
2000	Piano300 exhibition opens at the Smithsonian Institution, Washington, D.C.

National Standards for Music Education

1. **Singing, alone and with others, a varied repertoire of music.**
2. **Performing on instruments, alone and with others, a varied repertoire of music.**
3. **Improvising melodies, variations, and accompaniments.**
4. **Composing and arranging music within specified guidelines.**
5. **Reading and notating music.**
6. **Listening to, analyzing, and describing music.**
7. **Evaluating music and music performances.**
8. **Understanding relationships between music, the other arts, and disciplines outside the arts.**
9. **Understanding music in relation to history and culture.**

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